



California
Energy Commission
Research & Development

GFO-18-305 Pre-Application Workshop

Developing Lessons Learned, Best Practices,
Training Materials and Guidebooks for
Customer Side of the Meter Energy Storage
Energy Research and Development Division

September 19, 2019
Quenby Lum and Mike Gravely





Agenda

Time	Item	Speaker
10:00 am	Welcome and Introduction	Mike Gravely
10:10 am	Solicitation Background <ul style="list-style-type: none">• Energy Storage Research Program• Purpose of Solicitation• Available Funding• Key Technical Requirements	Mike Gravely
10:35 am	Application Requirements <ul style="list-style-type: none">• Grant Submission Requirements• Attachments• Submission Process	Quenby Lum
11:00 am	Q&As	Mike Gravely Quenby Lum
12:00 pm	Adjourn	



Housekeeping

- In case of emergency
- Facilities
- Sign-in sheet
- WebEx participants
- Updates on solicitation documents including this presentation will be posted at the Grant Funding Opportunity's webpage:

<https://www.energy.ca.gov/solicitations/2019-09/gfo-18-305-developing-lessons-learned-best-practices-training-materials-and>



Commitment to Diversity

The California Energy Commission (CEC) adopted a resolution strengthening its commitment to diversity in our funding programs. We continue to encourage disadvantaged and underrepresented businesses and communities to engage in and benefit from our many programs.

To meet this commitment, CEC staff conducts outreach efforts and activities to:

- Engage with disadvantaged and underrepresented groups throughout the state.
- Notify potential new applicants about the CEC's funding opportunities.
- Assist applicants in understanding how to apply for funding from the CEC's programs.
- Survey participants to measure progress in diversity outreach efforts.



We Want to Hear From You!

1 Minute Survey

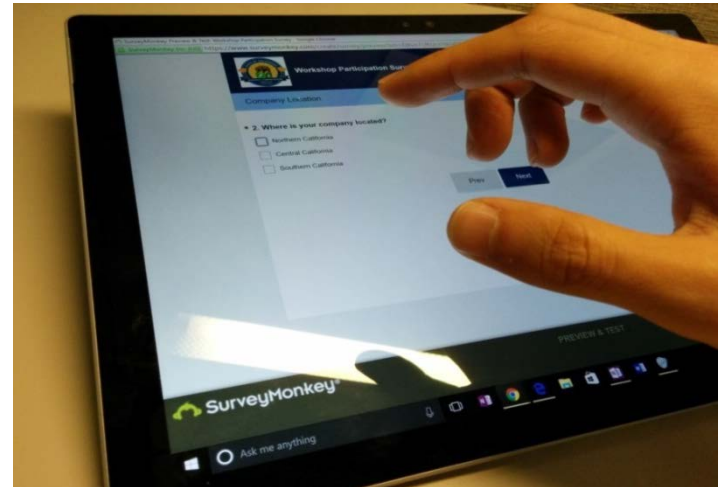
The information supplied will be used for public reporting purposes to display anonymous overall attendance of diverse groups.

- WebEx participants, please use this link:

<https://www.surveymonkey.com/r/GFO-18-305>

- iPads are being passed around the room

Thanks!

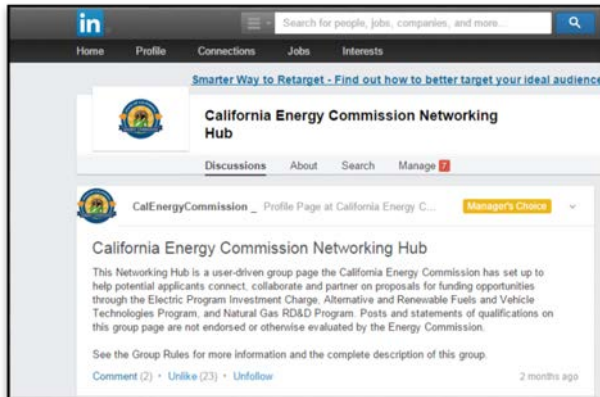




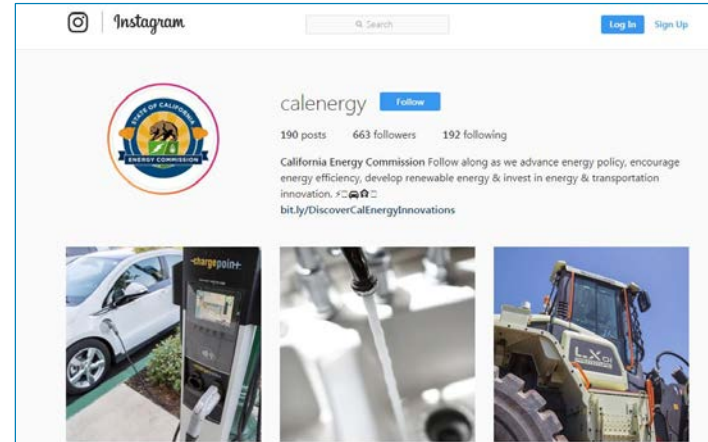
Connecting With Us



Twitter



LinkedIn



Instagram





Research Program Background

- The Electric Program Investment Charge (EPIC) Program is an electricity ratepayer surcharge established by the California Public Utilities Commission (CPUC) in December 2011
- The purpose of the EPIC program is to benefit the ratepayers of three investor-owned utilities (IOUs)*
- The EPIC program funds clean energy technology projects that promote greater electricity reliability, lower costs, and increased safety
 - Applied research and development
 - Technology demonstration and deployment
 - Market facilitation



EPIC 2018-2020 Triennial Investment Plan

- Funded projects must lead to technological advancement and breakthroughs to overcome the barriers that prevent the achievement of the state's statutory energy goals
- Annual program funds total \$130 million
- **Program Area:** Market Facilitation
- **Strategic Objective 2.3:** "Define and Improve the Customer's Business Proposition of Integrated Distributed Storage"
 - **Funding Initiative 2.3.1** Development of Customer's Business Proposition to Accelerate Integrated Distributed Storage Market



EPIC Program

Energy Innovation Pipeline

APPLIED RESEARCH AND DEVELOPMENT

Focuses on validating new
ideas and technologies

TECHNOLOGY DEMONSTRATION AND DEPLOYMENT

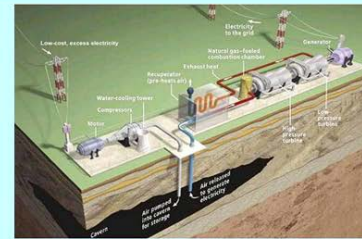
Demonstrates strategies
at real-world scales

MARKET FACILITATION

Overcomes non-technical
hurdles to increase
market adoption and
expansion of
emerging solutions

emerging solutions
expansion of

The Energy Commission Has a Long History with Energy Storage Research and Development





Anticipated New Energy Storage Solicitation: Demonstrate Emerging Energy Storage Technologies that Can Support the Future Clean Energy Needs of the California Grid

Purpose: This solicitation will develop customer-side-of-the-meter energy storage solutions that address increased energy density and critical system energy needs such as resiliency, reliability, improved safety, better long term or lifecycle performance and lower costs than currently fielded systems.

Anticipated Release Date

October 31, 2019

Estimated Funding Amount

\$11 million



Anticipated New Energy Storage Solicitation: **Energy Storage Demonstration that Support Distributed Energy Resources and a Carbon Free Grid by 2045**

Purpose: This solicitation will focus on demonstrating long-duration energy storage (10 hours or greater), residential energy storage compliance options, energy storage technologies that can provide clear value to support critical operations, community facilities and other relevant services in disadvantaged and/or low-income communities, and energy storage technologies that can provide clear value to support critical operations, community facilities and other relevant services in Native American Tribe communities.

Anticipated Release Date
October 31, 2019

Estimated Funding Amount
\$20 million



Policy Drivers

- **AB 546 – Land Use: Local Ordinances: Energy Systems**
 - California Energy Storage Permitting Guidebook
- **SB 350 Clean Energy and Pollution Reduction Act of 2015**
 - California's Renewables Portfolio Standard and Energy Efficiency for End-Use Customers
- **New Residential Zero Net Energy Action Plan 2015-2020**
 - Zero Net Energy Market for New Homes
- **Executive Order B-30-15**
 - GHG Emissions Reduction Targets



Purpose of Solicitation

Fund a grant to define the best practices and develop an electronic guidebook for permitting energy storage based on technology type, size, and application.

- This solicitation was developed in collaboration with the Governor's Office of Planning and Research (OPR)
- The results will be used to create a California Energy Storage Electronic Guidebook
- Identify key permitting issues as barriers to success for the cost-effective installation of energy storage on the customer side of the meter
- Provide sufficient energy storage technology information for permitting organizations to complete their required duties
- Provide a comprehensive set of guidelines in an electronic format to address key permitting issues



Match Funding

- Match funding is optional.
- Applications that include match funding will receive additional points during the scoring phase.
- Match funding contributors must submit match funding commitment letters that meet the requirements of Attachment 11. Failure to do so will disqualify the match funding commitment from consideration.
- Refer to Section I.F.2 in the Solicitation Manual for more details on match funding.
- **For clarity purposes, Scoring Item 9b (GFO Page 35) will be deleted with upcoming amendment to GFO-18-305**
- **For clarity purposes, Scoring Item 10 (GFO Page 36) will be deleted with upcoming amendment to GFO-18-305**



Developing Lessons Learned, Best Practices, Training Materials and Guidebooks for Customer Side of the Meter Energy Storage

Requirements (cont.):

The following major research elements will be expected for the successful awardee of this grant:

- A. Assessing the Issues
- B. Develop Lessons Learned and Best Practices Documents
- C. Develop Electronic Energy Storage Guidebook
- D. Provide a Minimum Two Years of Electronic Guidebook Training and Support
- E. Maintenance



Assessing the Issues

- The awardee will conduct research to create categories for energy storage systems, for example based on size and type, to differentiate permitting requirements and procedures needed for different kinds of storage systems.
- The awardee will make recommendations on the best approach by engaging stakeholders in vetting and validation of best practices throughout the development of the guidebook materials.
- The awardee should plan at least two public workshops in different regions of the state (e.g., Northern California, Southern California, Central Valley) to gather information from key stakeholders
- The awardee will develop a consensus-based categorical structure for segmenting the market and identifying the key risks and value for each segment.
- It is important for the potential awardee to explain in detail in their proposal their experience in this area of gathering this type research



Develop Lessons Learned and Best Practices Documents

- The awardee will interview local governments, AHJs, appropriate industry representatives, state agencies, and end customers to develop detailed lessons learned from already-installed energy storage systems on the customer side of the meter.
- The awardee will also assess best approaches for making the materials most useful (e.g., a guidebook, energy storage technology educational materials, interactive web-based delivery) to varying stakeholders and make recommendations on how the final materials should be developed.
- The awardee should take into account lessons learned from the development and implementation of the Zero-Emission Vehicles in California: Community Readiness Guidebook, and the California Solar Permitting Guidebook: Improving Permit Review and Approval for Small Solar Systems, and stakeholder interests.
- The awardee will then develop content in a format approved by the Commission Agreement Manager for customer side of the meter energy storage.



Develop Electronic Energy Storage Guidebook

- The awardee will prepare the proposed electronic guidebook based on incorporating all the information gained from the previous activities under this grant and provide the material for review and comments by appropriate stakeholders.
- The awardee should plan on hosting at least two public vetting workshops in different regions of the state (e.g., Northern California, Southern California, Central Valley) to discuss the draft materials and receive comments from stakeholders.
- The awardee will recommend workshop locations based on feedback from prior outreach efforts in the project.
- The awardee will then create a final set of materials based on feedback and input from the vetting workshops.



Provide a Minimum Two Years of Electronic Guidebook Training and Support

- The awardee will develop training materials to assist AHJs and local agencies in implementing the electronic guidebook, including technical details on appropriate energy storage technologies that can be applied on the customer side of the utility meter
- The awardee will also provide outreach materials to other stakeholders, such as manufacturers, developers, and end users of the permitting guides.
- The awardee will propose a strategy for delivering the training based on feedback from stakeholders to ensure greatest possible participation
- The awardee will also propose a strategy for making periodic updates to the materials so that they remain relevant and timely
- No later than eight months prior to the end of the performance period of the grant, the awardee will provide the Energy Commission a set of open, non-proprietary documents, software and all other necessary deliverables required for the future operation and maintenance of the delivered materials after the performance period of the awarded grant. These deliverables shall be suitable for use in a competitive award for these future services.



Maintenance

- The awardee will develop a strategy for the continued and ongoing maintenance of the online guidebook.
- No later than eight months prior to the end of the performance period of the grant, the awardee will submit a plan for the future operation and maintenance of the electronic guidebook and all associated materials after the performance period of the awarded grant in a manner that either eliminates or substantially reduces the need for future state funding.



Developing Lessons Learned, Best Practices, Training Materials and Guidebooks for Customer Side of the Meter Energy Storage

Examples for maximizing benefits to strengthen proposal:

- Demonstrate depth of expertise in energy storage assessment and its rapidly changing policy and infrastructure.
- Describe how to engage stakeholders for input and feedback.
- Demonstrate ability to work successfully with various stakeholders and address needs of various end users.
- Integrate and analyze data from multiple sources to improve decision making.



Eligible Applicants

- This is an open solicitation for all public and private entities.
- Applicants are required to register with the California Secretary of State and be in good standing to enter into an agreement with the CEC:
<http://www.sos.ca.gov>
- Applicants must accept the EPIC terms and conditions.
 - Standard, UC, and DOE Terms & Conditions available online:
<http://www.energy.ca.gov/research/contractors.html>
- Applicants must propose a team with proven ability to successfully complete similar projects.



Application Requirements

Each Applicant must complete and including the following:

1. Application Form (.pdf)	7. Budget(s) (.xlsx)
2. Executive Summary (.docx)	8. CEQA Compliance Form (.docx)
3. Fact Sheet (.docx)	9. References and Work Product Form (.docx, .pdf)
4. Project Narrative (.docx)	10. Contacts (.docx)
5. Project Team (.docx, .pdf)	11. Commitment and Support Letters (.pdf)
6. Scope of Work (.docx)	12. Applicant Declaration (.docx)
6a. Project Schedule (.xlsx)	



Project Narrative (Attachment 4)

- This is your opportunity to explain the entirety of the project. The narrative should explain:
 - What is your approach?
 - Why is your approach the best approach?
 - What are the specific steps in your approach?
 - How will you demonstrate the cost effectiveness of your approach?
 - How will you ensure the end product is deployed?

Ensure you respond to the scoring criteria described in Section IV.F.



Scope of Work (Attachment 6)

- Tell us exactly what you are proposing to do in your project.
- Identify what you will deliver to the CEC.
- Be sure to include in the technical tasks:
 - At least one product deliverable per task.
 - Address requirements in Section II.B.
- Be sure to include in the Project Schedule (Attachment 6a):
 - Product deliverables that correspond with the Scope of Work.
 - Realistic dates for when product deliverables can be completed.



Budget (Attachment 7)

- Identify how you will be spending CEC funds and match funds to complete the project.
- Provide a separate budget form for each subcontractor receiving \$100,000 or more in CEC funds.
- Submit in the format provided. **Do not delete sheets or rows, or use the hide/unhide functions.**
- Ensure that all rates provided are **maximum** rates for the entire project term.



Commitment and Support Letter Forms (Attachment 11)

- Follow guidelines provided for commitment and support letters.
 - Commitment letters are required for entities or individuals that are committing match funding, testing/demonstration sites, including the **Prime**.
 - Any project partners that will make contributions to the project (other than match and sites) must submit a commitment letter.
 - Support letters describe a project stakeholder's interest or involvement in the project. All applicants must submit **at least one** support letter.
 - Limit to two pages per letter, excluding the cover page.



Applicant Declaration (Attachment 12)

- This is a new form stating that the applicant is in good standing with both the state of California and the California Energy Commission.
 - Not delinquent on taxes.
 - Registered to do business in California with the Secretary of State.
 - Not actively being sued by any public agency or entity.
 - Not in active litigation with the CEC.
 - Sign and date under penalty of perjury.



How will my Application be Evaluated?

Application Screening

Admin Screening Process

1. California Energy Commission staff screens applications per criteria in Section IV.E.
2. Criteria are evaluated on a pass/fail basis.
3. Applicants must pass all screening criteria or the application will be disqualified.

Some Reasons for Disqualification

- ☐ Application is not submitted by the specified due date and time.
- ☐ Applicant did not sign the Application Form (Attachment 1).
- ☐ Application does not include one or more support letters.
- ☐ Application contains confidential material.



How will my Application be Evaluated?

Application Scoring

- **Evaluation Committee applies the scoring scale to the scoring criteria.**
- **New Scoring Criteria – Past Performance with California Energy Commission.**
- **Applications must obtain a minimum passing score of 6 points for Criteria 1 in order to continue evaluation.**

Scoring Criteria	Maximum Points
1. Project Team Past Performance with California Energy Commission	15
Severe performance issues (0-5 points)	
Moderate performance issues (6-12 points)	
No/minor performance issues (13-15 points)	
Total	15
Minimum Points to Pass	6



How will my Application be Evaluated?

Application Scoring

- **Applications must obtain a minimum passing score of 63 points for Criteria 1-5 in order to continue evaluation.**

Scoring Criteria	Maximum Points
2. Technical Merit and Need	15
3. Technical Approach	25
4. Impacts and Benefits for CA IOU Ratepayers	20
5. Team Qualifications, Capabilities and Resources	15
Total	90
Minimum Points to Pass	63



How will my Application be Evaluated?

Application Scoring

- **Applications must obtain a minimum passing score of 80.5 points for Criteria 1-8 in order to be considered for funding.**
- **Each Applicant must review the Evaluation and Award Process section of the solicitation and ensure your application provides a clear and complete response to each scoring criteria.**

Scoring Criteria	Maximum Points
6. Budget and Cost-Effectiveness	10
7. EPIC Funds Spent in CA	10
8. Ratio of Direct Labor to Indirect Costs	5
Total	115
Minimum Points to Pass	80.5



How will my Application be Evaluated?

Additional Bonus Points

- **Applications must meet all minimum passing scores (Scoring Criteria 1, 1-5, and 1-8) to be eligible for the additional points. Criteria for bonus points include:**
 - **Match Funding**

Scoring Criteria	Maximum Points
9. Match Funding	5
Total Bonus Points	5



Match Funding Points

Applicants may receive up to 5 additional preference points based on the criteria below:

- Up to 5 points will be awarded based on the level of commitment, type of match funding, dollar value justification, and funding replacement strategy described in the match funding commitment letter.
- Refer to Section IV.F in the Solicitation Manual for more details on the match funding scoring criteria.



GFO Submission Requirements (Electronic)

- Preferred method of Delivery is the California Energy Commission Grant Solicitation System, available at: <https://gss.energy.ca.gov/>
- Electronic files must be in Microsoft Office Word (.doc, .docx) and Excel (.xls, .xlsx) formats, unless originally provided in solicitation in another format.
- Attachments requiring signatures (Application Form, Declaration, Support/Commitment Letters) may be scanned and submitted in PDF format.
- First-time users must register as a new user to access system.
- "How to Apply" video:

<https://www.youtube.com/watch?v=nxrdS3KHSAA&feature=youtu.be>

Test system before the due date and don't wait until the last minute to submit.



GFO Submission Requirements (Hard Copy)

- Submit Applications with all attachments in the order specified by the due date and time listed in Section I.G of the manual.
- Application documents should meet formatting requirements, page limits, and number of copies specified in Section III.
- Provide one hard copy and one electronic copy (CD-ROM or USB stick) containing electronic files of the application.



Next Steps After Grant Award

- **Notice of Proposed Award (NOPA):** Shows total proposed funding amounts, rank order of applicants, and the amount of the proposed award.
- **Agreement Development:** Proposal documents will be processed into a legal agreement.
- **Failure to Execute:** The CEC reserves the right to cancel the pending award if an agreement cannot be successfully executed with an applicant.
- **Project Start:** Recipients may begin work on the project only after the agreement is fully executed (approved at an CEC business meeting and signed by the Recipient and the CEC).
- **Debriefings:** Applicants not awarded may request a debriefing from the CEC through the Commission Agreement Officer within 30 days of the NOPA posting.



Key Dates

Activity	Date
Solicitation Release	September 9, 2019
Pre-Application Workshop	September 19, 2019 at 10:00 am
Deadline for Written Questions	September 27, 2019 at 5:00 pm
Anticipated Distribution of Questions and Answers	Week of October 14, 2019
Deadline to Submit Applications	November 8, 2019 at 5:00 pm
Anticipated Notice of Proposed Award Posting	December 13, 2019
Anticipated CEC Business Meeting	March 11, 2020
Anticipated Agreement Start Date	May 1, 2020
Anticipated Agreement End Date	December 31, 2023

Questions and Answers



- Please state your name and affiliation as an introduction.
- Please keep questions under 3 minutes to allow enough time for others.
- Please note that our official response will be given in writing in the Q&A document. We encourage you to submit all questions in writing in addition to asking them today.



Additional Questions

Updates on solicitation documents including this presentation will be posted at the Grant Funding Opportunity's webpage:

<https://www.energy.ca.gov/solicitations/2019-09/gfo-18-305-developing-lessons-learned-best-practices-training-materials-and>

Please send all questions related to GFO-18-305 to:

Crystal Presley-Willis

Commission Agreement Officer

1516 Ninth Street, MS-18

Sacramento, CA 95814

(916) 653-6110

Crystal.Presley-Willis@energy.ca.gov

Deadline to submit questions:

September 27, 2019 at 5:00 PM